Amendments to the Claims:

The following is a repeated listing of the claims which is filed pursuant to the comments in the January 18, 2006 Notice of Non-Compliant Amendment. This listing of claims replaces all prior versions and listings of claims in this application.

Listing of Claims:

1.   (original)   A method of providing a signaling channel for performing one or more signaling functions at the level of Ethernet wherein telecommunication is organized by information packets forming an information flow, the method comprises utilizing a combined flow composed from said information flow and one or more service flows formed from service packets being compatible with said information packets, wherein the service packets belonging to a particular service flow carry indication of a corresponding one of said signaling functions to be performed, while said one or more service flows form the signaling channel at the level of Ethernet.

2.   (original)   A method according to Claim 1, for providing the signaling channel at the level of Ethernet between a first and a second operating points in a network domain, the method comprising steps of:

-     arranging at the first operating point a source element capable of receiving the information flow from a first Ethernet device,

-     arranging at the second operating point a sink element capable of transmitting the information flow to a second Ethernet device,

-     producing at the source element the service packets forming said one or more service flows,

-     at the source element, merging said one or more service flows with the information flow, thereby obtaining the combined flow with the signaling channel,

- transmitting data comprised in the combined flow via the network domain from the source element to the sink element,

- at the sink element, extracting the service packets of said one or more service flows from said combined flow and processing said service packets, thereby performing said one or more signaling functions.

3.   (original)   The method according to Claim 2, wherein the step of producing the service packets forming said one or more service flows is performed at the source element based on at least one of the following two operations: monitoring the information flow and monitoring external instructions.

4.   (original)   The method according to Claim 1, wherein said service packets compatible with the information packets are suitable for multiplexing with one another.

5.   (original)   The method according to Claim 2, further comprising arranging one or more monitoring points between the two operating points.

6.   (original)   The method according to Claim 2, comprising arranging between said two, basic, operating points at least one additional operating point comprising an additional source element and/or sink element, thereby forming two or more signaling channels between said two basic operating points.

7.   (original)   The method according to Claim 2, wherein a span of the network domain between said two operating points consists of segments which belong to Ethernet only, thereby enabling creation of the combined flow in the pure Ethernet.

8.   (original)   The method according to Claim 2, wherein a span of the network domain between said two operating points comprises segment(s) of a transport network, the method further comprises preserving said signaling channel during transmitting the combined flow via the transport network.

9.　　(original)　The method according to Claim 1, further comprising at least one step from the following list:

- mapping packets of the combined flow into frames of a transport network for transmitting said packets via the transport network,

- de-mapping frames of a transport network incorporating said combined flow, for separating thereof from said frames,

　　　　thereby preserving the signaling channel at the Ethernet level.

10.　　(original)　The method according to Claim 8, further comprising the following steps:

- mapping packets of the combined flow into frames of the transport network for transmitting said packets via the transport network,

- de-mapping frames of the transport network incorporating said combined flow, for separating thereof from said frames and processing,

thereby preserving the signaling channel at the Ethernet level.

11.　　(original)　The method according to Claim 1, comprising indication of a particular signaling function in the header of a service packet of said service packets, and providing data on said particular signaling function in the data field of the service packet.

12.　　(original)　The method according to Claim 1, wherein said one or more of the signaling functions are selected from the following non-exhaustive list:

　　　　performance monitoring functions including at least one Tandem Connection function,

　　　　one way and round trip delay measurement function,

　　　　far end status function,

　　　　connection integrity check function,

　　　　buffer fill check function,

　　　　function for enabling congestion indication and rate control.

13.   (original)   A source element for creating a signaling channel for performing one or more signaling functions at the level of Ethernet, capable of:

-    receiving Ethernet information packets forming an information flow,

-    producing one or more service flows of service packets compatible with said information packets, wherein the service packets belonging to a particular service flow carry indication of a specific signaling function to be performed, and

-    composing from said information flow and said one or more service flows an outgoing combined flow with the signaling channel formed by said one or more service flows.

14.   (original)   The source element according to Claim 13, wherein said one or more service flows are produced by a source function block based on monitoring at least one of the following two: the information flow and external instructions.

15.   (original)   The source element according to Claim 13, further comprising a mapping unit for transmitting the outgoing combined flow via a transport network, thereby ensuring transmission of said signaling channel via the transport network.

16.   (original)   A sink element for terminating a signaling channel intended for performing one or more signaling functions at the level of Ethernet, the sink element is capable of:

-    receiving an incoming combined flow composed from an information flow of Ethernet packets and one or more service flows formed from service packets compatible with the information packets,

-    separating from said combined flow the one or more service flows and analyzing thereof to perform said signaling functions respectively assigned to said service flows.

17.   (original)   The sink element according to Claim 16, further provided with a de-mapping block capable of obtaining said incoming combined flow from frames of a transport network

which envelope the combined flow, thereby ensuring receiving the signaling channel via the transport network and analyzing thereof at the Ethernet level.

18.   (original)   An assembly for creating a first signaling channel and for analyzing a second signaling channel, both signaling channels intended for performing one or more signaling functions at the level of Ethernet, the assembly comprising a source element and a sink element, wherein:

the source element for creating the first signaling channel is capable of

-      receiving Ethernet information packets forming an information flow,

-      producing one or more service flows of service packets compatible with said information packets, wherein the service packets belonging to a particular service flow carry indication of a specific signaling function to be performed, and

-      composing from said information flow and said one or more service flows an outgoing combined flow with the signaling channel formed by said one or more service flows; the sink element for terminating the second signaling channel being capable of

-      receiving an incoming combined flow composed from information flow of Ethernet packets and one or more service flows formed from service packets compatible with the information packets,

-      separating from said incoming combined flow the one or more service flows and analyzing thereof to perform said signaling functions respectively assigned to said service flows.

19.   (original)   A system for providing a signaling channel for performing one or more signaling functions at the level of Ethernet in any network domain comprising Ethernet, capable of performing the method according to Claim 1.

20.   (original)   A system for providing a signaling channel for performing one or more

signaling functions at the level of Ethernet, utilizing the assembly according to Claim 18,

wherein the first signaling channel and the second signalling channel are one and the same

signaling channel.

21.   (new)   A method for providing a signaling channel for performing one or more

signaling functions at the level of Ethernet wherein telecommunication is organized by

information packets forming an information flow, the method comprises utilizing a combined

flow composed from said information flow and one or more service flows formed from service

packets being compatible with said information packets, wherein said one or more service flows

form the signaling channel at the level of Ethernet, the service packets belonging to a particular

service flow carry indication of a corresponding one of said signaling functions to be performed,

and wherein said one or more of the signaling functions enable achieving at least one of the

following objectives:

       performance monitoring,

       far end status indication, including remote failure indication,

       remote loopback, including one way and round trip delay measurement,

       link monitoring, including connection integrity check,

       buffer fill check,

       congestion indication and rate control.